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(54) Title: VIEWING WINDOW CLEANING APPARATUS

(57) Abstract: A viewing port for a processing chamber is provided that includes a viewing window cleaning apparatus, a viewing window, and a mounting, where the viewing window cleaning apparatus is coupled to the mounting and disposed between the viewing window and the process chamber, and is configured to form a cleaning plasma in a cleaning plasma region of the mounting. In addition, the mounting can be configured to reduce a number of by-products from a process chamber on the viewing window by preventing them from propagating to the window.

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# INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US03/26302

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C03C 15/00; C23F 1/00; H01L 21/00

US CL : 156/345.24,345.25,345.48;118/712,713,7231;204/192.13,192.33,298.03,298.32;216/59,60,68;427/8;438/7

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : Please See Continuation Sheet

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
EAST Search

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,290,383 A (KOSHIMIZU) 1 March 1994 (01.03.1994), fig. 26 and its description.	1-4,8-14,21-24,28,32-33
Y		5-7, 15-20, 25-27, 29-31
Y,P	US 6,503,364 B1 (MASUDA et al.) 7 January 2003 (07.01.2003), figures 2-3 and their descriptions.	5-7, 18-20, 25-27, 29
Y	JP 2001-77092 A (MASUDA et al.) 23 March 2001 (23.03.2001), figures 2-3 and their descriptions).	5-7, 18-20, 25-27, 29
Y	US 6,071,375 A (CHEN et al.) 6 June 2000 (06.06.2000), figs. 1-3 and col. 3-line 19 to col. 5-line 60.	17, 30
Y	US 6,306,246 B1 (MELVIN et al.) 23 October 2001 (23.10.2001), figs. 2-4 and their descriptions.	17, 30
A	US 5,824,158 A (TAKEUCHI et al.) 20 October 1998 (20.10.1998), see entire document.	1-33

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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**Continuation of B. FIELDS SEARCHED Item 1:**

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